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APPARATUS FOR CONTINUOUS EXTRACTION BY CHLOROFORM

BY

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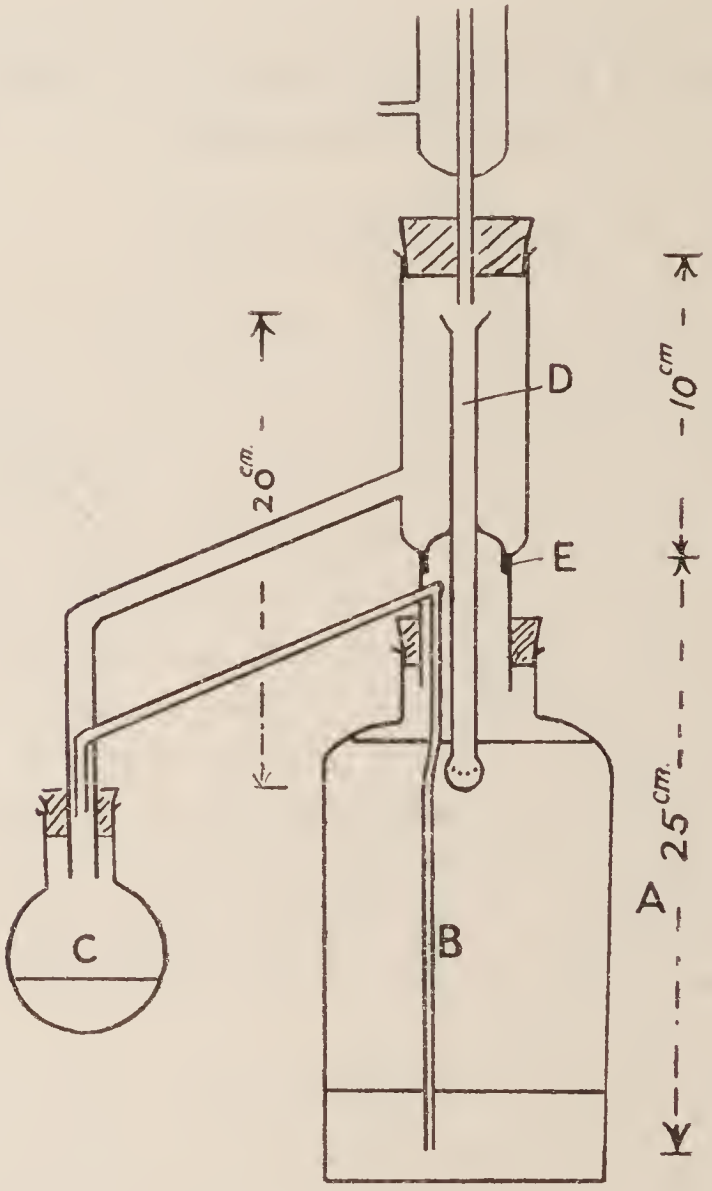
Most of the forms of apparatus designed for continuous extraction of aqueous solutions by heavy solvents such as chloroform depend for the return of the solvent to the reservoir on a siphon tube, the length of which must be such that the flow is broken before water is carried over; in practice this is not always easily adjusted. Other types are suitable only for small volumes of liquid (Berlin, G.P., 251459/1911: Kippenberger, Z. angew. Chem., 1916, **29**, 351; Fayolle and Lormand, Chim. et Ind., 1922, **8**, 273; Schmallfuss and Werner, J. pr. Chem., 1925, [ii], **110**, 37; Palkin, Murray, and Watkins, Ind. Eng. Chem., 1925, **17**, 612; Wagenaar, Chem. Weekblad, 1927, **24**, 36; Francis, Ind. Eng. Chem. [Anal.], 1929, **1**, 15).

In the apparatus illustrated the vessel A is closed, so that as the solvent collects in it it is forced over into the reservoir C, and return of the aqueous solution by siphoning is prevented. Sufficient solvent is placed in A to cover the end of the siphon tube B, and the aqueous solution is added. The solvent distilling in C falls from the condenser through the tube D, the small bulb at

the bottom of which is pierced by five or six pin-holes to deliver a spray of chloroform through the solution. This tube is fitted with a ground-glass joint E to facilitate



manufacture and cleaning. The apparatus is adaptable for large or small volumes of solution, which can be warmed if desired by immersing A in a bath.

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